1. T

0. 6. Sacrisa

ACCOMMODATION FOR THE INSANE

ON THE COTTAGE PLAN.

BY

WINTHROP B. HALLOCK, M. D.,

APPRICANT PHYSICIAN TO THE CONNECTICUT GENERAL HOSPITAL FOR THE INSANE, AT MIDDLETOWN.

[REPRINTED FROM THE NEW YORK MEDICAL JOURNAL, DECEMBER, 1873, AND JANUARY, 1874.]

PRIVITE LIPRARY

NEW YORK:
D. APPLETON AND COMPANY,
549 & 551 BROADWAY.
1874.

1874. PROSPECTUS FOR

THE MEDICAL PROFESSION

Of the United States have universally indorsed the New York Medical Journal as one of the very best medical periodicals published in the world.

THE

NEW YORK MEDICAL JOURNAL.

EDITED BY

JAMES B. HUNTER, M. D.,

Assistant Surgeon to the New York State Woman's Hospital, etc.

The Contents of each number are-

Original Communications from the very first writers of the Profession; articles which are widely circulated, and which leave their impress on the medical literature of the age.

Clinical Reports from Hospital and Private Practice, American and Foreign; Records of Cases taken alike from the crowded wards of the hospital, and the daily life of the husy practitioner.

Bibliographical and Literary Notes, carefully prepared and conscientiously written, of all the latest medical publications of the month.

Reports of the Progress of Medicine in the various departments—Obstetrics and Diseases of Women, Surgery, etc.

Proceedings of Societies, in which all the leading questions of the day affecting the Medical Profession are thoroughly discussed.

Miscellaneous and Scientific Notes of whatever may be deemed of interest or profit to the readers of the Journal.

Obituaries of the honored dead of the Medical Profession, deceased during the previous month.

Such a journal, giving the latest movements in the medical world, and keeping pace with the advance of medical science, cannot fail to be a medium of usefulness to the entire Profession, and to establish its claim to be, in the highest sense.

A Mc

A new 1874, and ensuing vo

A SI

New York I New York Art. Remitt

YALE MEDICAL LIBRARY



HISTORICAL

II Sciences.

nces in January, as to secure the

FIVE CENTS.

..per annum, \$8 00 s, Science, and .per annum, 7 00 Publishers,

Broadway, N. Y.

ACCOMMODATION FOR THE INSANE

ON THE COTTAGE PLAN.

ВΥ

WINTHROP B. HALLOCK, M. D.,

ASSISTANT PHYSICIAN TO THE CONNECTICUT OENERAL HOSPITAL FOR THE INSANE, AT MIDDLETOWN.

[REPRINTED FROM THE NEW YORK MEDICAL JOURNAL, DECEMBER, 1873, AND JANUARY, 1874.]

NEW YORK:
D. APPLETON AND COMPANY,
549 & 551 BROADWAY.
1874.



ACCOMMODATION FOR THE INSANE ON THE COTTAGE PLAN.

Turs subject of provision for the insane is not a new one. Among those who are immediately connected with the eare of the insane, the question as to how all of them (the Mependent class) shall be decently provided for, has been extensively discussed, and there seems to be no sign of its abatement.

Outside of the medical profession the fact which gives rise to the discussion is not very generally known. The public have no knowledge of the great number of dependent chronic insane existing in almost every State that are unprovided with asylum accommodation. A part of them only get such accommodation; the rest are mainly kept in almshouses, and it is desirable that all should be cared for alike. Hence the discussion of the question as to the best mode of bringing about this much-desired end.

The problem of merely the mechanical part of making provision for the insane is generally looked upon as one extremely complicated and difficult to deal with. Every asylum building for the insane, in this country, is evidence of this fact. To provide accommodation upon the present hospital plan for a

few hundred of these persons, is, owing to the immense cost, a very formidable undertaking, and it requires a prodigious effort on the part of the movers in a matter of this kind to create and complete one of these modern institutions.

Differing somewhat from the present hospital system for all the different forms of insanity, have been proposed two plans, viz., the "Cottage System," and "Separate Provision for the Chronic Insane Poor." An institution upon the latter plan is now (since 1869) in successful operation at Ovid, N. Y., and is known as the "Willard Asylum for the Insane." The cottage system has not yet been tested to any great extent in this country.

It is our purpose to consider in this paper the latter system only, as compared with the present, or hospital system. We would say, however, regarding this institution for the chronic insane—the Willard Asylum—judging from the reports, that it is, or will be, essentially the same thing as the so-called cottage system. The only difference is an absence of the recent cases, and, as a starting-point, large buildings; the extensions, as proposed, are to be by groups of smaller buildings.

From what we have observed during an experience of some years with the insane, we are led to the belief that the question of provision is one easy of solution; indeed, we can see no reason why it should be considered so difficult and complicated, unless it be that their real needs, with respect to building, are not understood. The reasons upon which this belief is grounded will appear when we come to relate our experience, which will be somewhat in detail. Before proceeding to do this, however, it will be best, in order that the subject may be the better understood, to give a brief description of the two systems (as regards the buildings) under consideration.

The prevailing system or plan (called "congregate," or "close" hospital) is this: a centre or administrative building, with wings extending from each side. These wings are three and four stories in height, with thick and massive walls. The centre building, which is higher than the wings, divides the sexes. These hospital or asylum buildings contain from four to six hundred patients, the sexes, as a general thing, being about equal as to numbers. Among them will be found all

varieties of mental disease. This necessitates elassification, and, in order to do this, the wings are divided off into wards. As to the sleeping-space within the wards, only about one-quarter of the patients, on the average, in State institutions, get single rooms; the remainder have to associate together in varying numbers.

The cottage system, as advocated by Drs. Jarvis, McFarland, Lee, Bemis, and others, is: a building adapted to the treatment of acute cases, and the safe keeping of all others requiring the strongest form of restraint; and, supplementary to this hospital-building, a group of two-story houses on one side for males, and a similar group for females on the other. These houses or cottages (the name matters but little), some recommend, should be large enough to accommodate as many as forty patients; others recommend a smaller size.

Those who have advocated this plan believe that, as a whole, the insane do not need, simply as a place of abode, the eostly hospital structure, that only about one-third of the whole number to be found in any community require it, while the other two-thirds can be cared for just as well in buildings of a less expensive nature. We quote from the late Dr. Chas. A. Lee: "In the view of most people, all the insane are elassed in one category, and elose confinement within an asylum is deemed the only panaeea, very little discrimination being exercised, . . . while the important fact is overlooked that a vast majority of the insane are quiet, harmless, chronic cases, who only need moderate supervision. But, for the acute, violent cases, curative hospitals are indispensable. . . . Theoretieally it is assumed that each State is both able and willing to build large and expensive asylums for all its insane, and multiply them as fast as oceasion required, for the reception and accommodation of the whole elass. But no State has yet

¹ The word "restraint," as here used in this paper, has reference to the buildings or surroundings of the patient, not mechanical apparatus used in certain cases.

² See paper entitled "Provision for the Insane," prepared by Dr. Chas. A. Lee, of Peekskill, N. Y., for the Western Social Science Association, at Chicago, June 8 and 9, 1870, and published in the "First Biennial Report of the Commissioners of Public Charities" of Illinois.

done it, nor is it probable ever will do it. The whole plan has been conceived in ignorance of the true ratio of increase of chronic lunacy, and in ignorance of the result in foreign countries, especially in Great Britain, where it has met with

signal failure."

John B. Chapin, M. D., Superintendent of the Willard Asylum for the Insane, in a pamphlet entitled "Provision for the Chronic Insane," alluding to the different classes of cases to be found in every asylum (page 12), says: "For the care and treatment of those cases requiring restraint and immediate medical attention and inspection, a building of proportions much reduced below the usual standard would answer every requirement. . . . An anxiliary organization, or an organization supplementing the hospital, should comprise arrangements for the custodial care of the quiet, harmless, and manageable insane, mostly of the chronic class. Two-thirds of the insane are of this class. This organization should be in the nature of a colony, made up of detached buildings, for both sexes, having the relation of contiguity to the hospital. It would supplement the hospital by affording more extensive facilities for classification. While the hospital building would furnish the extreme of restraint, the colony organization would reduce it to the simplest form of surveillance." Further on (page 14), speaking of asylum buildings, Dr. Chapin says: "There is no doubt that the great expense attending the erection and operation of our asylums for the insane has proved the greatest embarrassment to their multiplication. . . . If, for instance, a State with the population of New York, were to determine to place all her insanc in asylums, upon plans usually adopted, the sum of six million dollars, at least, would be required. Provision would still be necessary to meet the annual expectancy. What prospect there is that any populous State will accomplish the result of placing all its insane in asylums, they can best answer who labor with Legislatures to secure the moderate sums yearly asked for repairs and improvements of buildings already erected. No State, at home or abroad, has yet been able to place all its insane in asylums on the present plans, and never will be able to do so, unless great concessions are made in this respect."

We quote from Dr. George Cook, of Canandaigua, New York: "The great mass of the ehronic insane have never been, and never will be, provided for in such" (present style) "hospitals. Nor is it necessary for their best good that the State should incur the great expense of erecting hospitals, with all the appliances for curative treatment, for the great number of ehronic insane. There are obstacles in the way of hospital provisions for all the insane poor, which have hitherto been insurmountable, and which will continue, in all the future, to bar the way to any real progress in this direction. These obstacles are the great cost of hospital construction under the present system. . . ."

Regarding our own observations, our experience has been principally with the chronic class.

We would divide the insane, as regards restraint, into three elasses: 1. Cases requiring the strongest form; 2. Cases requiring only a modified form; and 3. Those requiring no restraint whatever.

The first class is made up of eases of acute mania, the dangerous ehronie insane, some (not all) of the epileptie, the homicidal, suicidal, and some of those whose sole object is to get away. The second class is made up of eases of senile dementia, and some eases of chronic mania, dementia, imbecility, and epilepsy. The third class is composed of convalescents, patients with a slight derangement who are conscious of their malady, many eases of chronic mania, a majority of the eases of dementia and imbecility, and a part of the epilepties.

Now, it can be ascertained without difficulty—though it requires time—how many there are of each class in a given number congregated together, and the degree of restraint and supervision that is required for each. Take the insane, as a whole, in the different States, and but little difference will be found. Cases of acute mania, melancholia, etc., will occur in about the same relative proportions in one part of the country as in another. The thing to know is, taking the whole insane

¹ See Dr. Cook's pamphlet entitled "Care and Treatment of the Insane Poor;" being remarks before the American Social Science Association, at New York, 1867.

population of any section, the proportions going to form the three classes into which we have divided them. This fact once ascertained, the question of provision ought to be easy of solution.

As bearing upon this question, we give below, in tabular form, some facts, gathered up through a series of years, as to the habits and disposition of the chronic insane, with reference to the amount of restraint and surveillance they need. All transient cases are excluded. The facts shown by this table relate only to the male side of the house. For reasons, the same practice, as to trusting patients out, could not be extended to the female side; but, if it had been practicable, which it was not, with building operations going on, and grounds uninclosed, we think a nearly similar result would have been arrived at:

YEAR.	1869	1870	1871	1872	18731
Average daily number present, round numbers Number employed on farm steadily, and including a few	109	115	120	131	139
who were constantly out alone—non-workers	29	35	37	55	60
alone, but for reasons were not so trusted	19	20 55	23 60	22 77	20 80
Of average number present, per cent. actually out Of average number present, per cent. of whole number	26. +	30. +	30. +	42.	42.+
tbat could be trusted	44.+	47.+	50.	58. +	57.+

The "number employed on farm steadily," and otherwise out, were those who could be, and were habitually, left without supervision; and no case is included in this number that had to be watched—none but those who could be trusted throughout the entire year, with barely two exceptions.²

The "additional number" considered safe, so far as elopement was concerned, were not trusted out for these reasons: some were cases of extreme dementia, and had no desire or thought of going out; some were physically disabled, and could not travel up and down stairs easily; others, cases of mild chronic mania, never wanted to go out, and some of them even could not be easily forced out. The sudden increase of the number actually trusted alone after the year 1871 is explained by the fact that two cottages, to be referred to hereafter, were then opened.

¹ Ten months.

² Periodical excitement. One man every few months would have to be kept in a few days; the other a few days every five or six weeks.

Regarding elopements of those who were habitually trusted out, only two went off in each year respectively, up to the fifth, when four went off. Elopements from this class are of no particular moment, as these patients are harmless.

It will thus be seen, according to the foregoing table, that one-half, in round numbers, of the chronic insane may be intrusted with their entire freedom, so far as elopement is concerned. Now, if so great a number require so little restraint, why is it necessary to erect for this class the costly hospital structure? They require no more medical treatment than so many sane persons; they are peaceable and orderly. And the same may be said, so far as "treatment" is eoneerned, of all those belonging to the second class. The characteristics of the latter class are briefly these: They require looking after if out; they are not destructive to the building, with the intention of getting away; some at times are excitable and noisy, yet harmless; some need mechanical restraint at times—the same as they would get if in the wards of a hospital—in order to prevent destruction of clothing, etc. As to the proportion of the insane of this class, according to our observations, we find that about thirty-five per cent, can be thus classed. This, then, would leave only about fifteen per eent, (of the ehronic class) to provide for in the "close" hospital. This number we have denominated the first class. It is needless to repeat here their characteristics.

Having determined, then, as to the needs (respecting restraint) of the chronic insane, this question arises: Supposing an institution is to be established upon a cottage basis, of all the cases of recent and chronic insanity occurring, what proportion of them will require the "close" hospital? As previously stated, it is the opinion of those who favor the non-hospital policy, that not more than one-third require the close hospital. This is certainly placing the number of this class high enough; and our own opinion is that not more than one-quarter of the whole would need it, supposing that the fifteen per cent. above mentioned (chronic) must be put into the hospital.

In support of the opinion that the insane require, as a place of abode, only an ordinary building, we have some experience to relate respecting two cottages which have been in operation, and under our observation, since December, 1871. These cottages were two old wooden houses near each other, and distant a few rods from the main building. They were fitted up and opened in December, 1871. Fourteen males were placed in one, and fifteen females in the other; two attendants in charge of each. The patients were of the chronic class. The food was supplied from the main building.

In the sixth annual report of the trustees, the superintendent, Dr. A. M. Shew, referring to these cottages, says: "Sufficient time has elapsed to convince me that, under more favorable circumstances, the 'cottage system' can be made to play an important part in connection with a regular organized hospital. There is a certain air of social comfort, more like the ordinary home-life, pervading these cottages, than can be found in the wards of a hospital."

After another year's experience with these cottages, Dr. Shew, in the next (seventh) report, thus speaks of them:

"I can conscientiously and gladly confirm what our last report contained on this subject. In spite of the crude and disadvantageous way in which we are making trial of it, the results are favorable. It will be pleasant to the friends of the insane to know that in the women's cottage, containing, as the average of the year past, about fifteen, almost wholly of the demented class, there has been no special sickness, no quarreling, and their being thus grouped under sagacious attendants has developed a power of setting themselves to work which has surprised us. For example, 64 pairs of stockings have been knit, 84 towels and 140 yards of toweling have been hemmed for our new north wing, 52 handkerchiefs and 30 bed-spreads were hemmed, and much repairing done, and all this from our most mentally wrecked ones.

"It shows that, with wise attendants, much happiness may be brought by suitable employments, even to such wretched ones, besides giving substantial results for the institution. The very success with our imperfect little cottages makes me long for the day when it will be in your power to order the erection of more structures adapted expressly to the wants of the men and women who would be benefited by the cottage system." Other important points which these cottages have established are, in regard to the matter of construction, the kind of building and appliances necessary, and the work of taking care of these buildings and inmates.

No water-closets were introduced into these cottages—only water for bathing and cleaning purposes—the hot water used being generated by means of a stove. Instead of waterclosets, earth-closets were put in, but they were soon abandoned, and the usual style of country privy, detached, substituted. With the latter system there has been no trouble whatever. We have been assured repeatedly by the attendants that it works satisfactorily. This is an important consideration, for if there is, in a hospital building, any one appliance that is expensive, not only as regards first, but continual eost, it is the water-closet system. Besides being costly and taking up space, which is also costly, it must, of necessity, be connected with the sewerage; and, as institutions, in general, fail to utilize the sewerage, a thing of immense value is thus lost to the hospital farm. No such loss would occur where eottages exist with the detached privy arrangement.

With respect to the number of attendants at these cottages, we have been told by them that twice the number of patients (thirty) could have been eared for just as easily, had the buildings been larger and adapted to the purpose. The transportation of the food and supplies from the main building, and the clothing to and from the laundry, has been done, from the beginning, by two of the male (cottage) patients for both cottages.

These patients readily learned to perform this work, and soon could do it even without an accompanying attendant. One of these was an old ease, who had been for years lying

around the hospital wards doing nothing.

As to elopements from these buildings, an inmate of the male cottage eloped twice within one month, after residing in it thirteen months. He had been in the institution twenty-one months, and out daily on the farm, and trusted everywhere. One elopement occurred from the female cottage. This patient, after her return to the institution, subsequently eloped from the main building. No other escapes occurred, although the patients had always, during pleasant weather, almost ab-

solute liberty of the grounds, the door of the day-room being left open. The windows had only ordinary wooden blinds, which could be locked. During the heat of summer, however, they were left open for ventilation. No one took advantage of this, and ran off. Only one blind has been broken, and that was done by the patient who escaped from the male cot-

tage.

To sum up, the two cottages in question have established:

1. That, in detached buildings of this kind, water-closets are not a necessary element in their construction; 2. That the amount of help need be no greater—other things being equal—than in the wards of a hospital; 3. That the labor of patients can be made available in the work pertaining to such structures; 4. That such patients as were placed in them are no more liable to escape than they would be from the main building; and, 5. That detached buildings—a portion at least—for the insane may be, if thought desirable, constructed of wood.

Now, if it has been shown that a portion of the chronic insane can be successfully cared for in ordinary detached buildings, why cannot all that are fit be thus provided for?

The minimum cost of the hospital, per capita, is fifteen hundred dollars; 'and from this amount it runs up to three,

and perhaps four thousand dollars.

Is this expenditure, taking the lowest even, really necessary for every insane person, no matter what the character of the case may be? Does a quiet, harmless, insane female need the same surroundings (building) as a powerful, destructive, and violent male patient? We must confess that, to us, the idea seems absurd. Dr. McFarland (formerly Superintendent of the State Asylum at Jacksonville, Ill.) truly says: "The present system of architectural construction adapts the entire institution to the demands of its smallest and worst class; while for the great majority all of these appliances are wholly unnecessary."

Says Dr. Chapin: 2 "Appreciating the pecuniary consid-

¹ See discussions of the question of the cost of asylums, by the Association of Superintendents, published in the October number of the American Journal of Insanity, 1870.

^{2 &}quot;Second Annual Report of the Trustees of the Willard Asylum."

erations which we believe in the end will alone settle this question, the plans for these structures" (of the Willard Asylum) "are presented solely in the interests of a wise economy, and as being best adapted to the actual condition of the insane. Under this plan, we believe it practicable to place every insane person in the State in buildings costing less than eight hundred dollars per patient. If, however, it is thought better to place all these persons in buildings costing from two thousand to four thousand dollars per patient, I will not object, though in the name of charity I must express the opinion that it is an expenditure wholly unnecessary."

The utter inadequaey of the hospital system—which the Superintendents' Association still recommend to Legislatures as the best and wisest policy—to meet the demands of the dependent insane is shown by the Board of Commissioners of Public Charities of the State of New York in their Fifth Annual Report. The subject of additional provision for the insane is discussed. They find that when the Willard Asylum is completed, with capacity to accommodate twelve hundred patients, there will still be left in the almshouses about as many more. "If, then," say the commissioners (page 24), "so large a number of the chronic pauper insane are to remain nnprovided for, after the completion of a capacious institution like the Willard Asylum, the question now pressing itself upon the attention of the State is, What disposition shall be made of those hereafter remaining in the inferior county poorhouses, and whose condition of discomfort will be analogous to that which the Willard Asylum was specially founded to remedy? If the principles upon which this institution was established were just in relation to a portion of the insane, and yet cannot reach the whole by reason of the inexpediency of enlarging its capacity indefinitely, so as to form an insane colony, then it behooves the State to consider whether, by some slight modification of those same principles, the desired end cannot be reached satisfactorily and for all time. . . . By the erection of plain, inexpensive buildings in connection with the already existing asylums, it is believed that the problem may be solved."

The Massachusetts Board of Charities are confronted with

a similar condition of things in their State. In their "Ninth Annual Report," on pages 54 and 55, we find these words: "It is worth the serious consideration of the Legislature, whether it would not be well to provide another receptacle for chronic and harmless lunatics, epileptics, and idiots.

"Upon principles accepted by experts in the management of the insane, and upon theoretical grounds, there are strong objections to an establishment founded in the idea of the ineurability of lunaey, even of twenty years' standing. It seems like burying in a tomb a body which may possibly eome to life.

"But most of these objections disappear upon an inspection of the establishment at Tewksbury" (where there are three hundred chronic insane). "There is a competent medical superintendent always at hand ready to recommend the removal to a curative hospital of any patient who may need special treatment. The patients are all well housed, well clad, and well fed. Very few of them ever enjoyed, when at large, so many of the plain comforts of life as they now do.

"They perform far more labor which is profitable to the establishment and beneficial to themselves, than do the patients in any of the hospitals in which labor is not usually exacted."

At London, Ontario, although a new asylum has been established within a recent period, the want of more room is already beginning to be felt.

Dr. Henry Landor, the superintendent, in his report, ending September 30, 1872, to Inspector Langmuir, says: "I am glad to find that you are prepared to recommend the erection of cottages for the chronic patients, male and female, who are able to behave themselves with propriety. The more consideration given to the cottage system, the more it will commend itself to your judgment."

The system of providing for all the varieties of insanity in large, massive buildings, is purely traditional. "It appears," says Dr. McFarland, "that the existing form of the hospital for the insane—a corridor running between two series of cells

¹ "First Biennial Report of the Illinois Board of State Charities," 1870. Dr. McFarland's address.

—may be traced, in its origin, to a period antedating the Reformation. The great reformation in the treatment of the insane, inaugurated at the close of the last century, at the time of the French Revolution, has not changed the form of their abode."

It is to this traditional system that the Association of Snperintendents of American Asylums still adheres as a body; a few individual members, however, have stepped out of the beaten track, and advocate a change.

The English Commissioners in Lunaey, who have been at work at this problem much longer than the American Association, have come to a different conclusion than the latter; for the English commissioners recommend, for certain classes, not hospital buildings, but the following: "Cottages or buildings of a cheap and simple character, consisting merely of associated day-rooms and dormitories, without long corridors or other expensive arrangements, should be provided for the use of the working patients. . . Provision of an equally simple and inexpensive description should also be made for a portion of the idiotic and epileptic patients, and also for chronic cases."

We do not urge the cottage plan merely upon sentimental grounds, such as the plea of "more liberty;" or that patients would see less of "barred windows and locked doors;" or that the eottages would look more "home-like;" these are minor considerations. We do it for these reasons: 1. We believe that, so far as the restraint afforded by a building is eoneerned, it is all the insane need; 2. That the occupants of such buildings will be healthier (fewer eases of debility) and happier, for the reason that, being on the ground-floor, access to the yard is easy at all times, enabling them to get more of the out-ofdoor life, which they so greatly need, and which so many enjoy. From the wards of a large building there are necessarily many impediments in the way of an easy egress and ingress; and hence, the feeble and helpless that are above the first story suffer from a want of this change; 3. A greater number will be induced to work, for the reason that they will be more accessible; they can be more easily prepared for work and eolleeted from eottages than from the wards of a large building. Many could be induced to work about the grounds of a cottage that one would never think of taking from the wards to do any thing; 4. That, costing less per capita than the hospital structure—less expended in mere building—more could be expended for personal comforts for the patients; 5. On account of fire—a most important consideration. Within a few years, several asylum buildings have been destroyed by fire. A calamity of this kind involves the State in a loss of many hundred thousand dollars, besides turning adrift several hundred insane persons, who have to be placed in other asylums that are perhaps already full. The burning of a cottage would not involve the whole institution in ruins, and the loss would be comparatively nothing. In a few months it could be restored, whereas it would require almost as many years to restore the hospital structure.

In a previous article it was attempted to show that the present method of providing hospital accommodation for all the insane was defective, being inadequate, by reason of its want of scope, to meet the demands of the dependent class; that it was unnecessary to provide such accommodation for all varieties of insanity; and that no State was ever likely to thus accommodate its whole insane population. We advocated the cottage system, so called, but which is more properly a combination of the cottage with the hospital plan. It is our purpose, in this paper, to consider this plan further, as to its merits and details, and the objections that have been offered against it.

Taking the insane of any section, including the annual expectancy, which is one in about every seventeen hundred of the population, hospital accommodation for one-quarter, we have said, would suffice. Others have put the hospital cases at one-third. Our plan and estimates will be upon the basis of one-quarter hospital.

We proceed by referring first to the detached buildings or Imagine, as supplementary to a central hospital building, a group of houses, for each sex, constructed somewhat after the following outline: A structure, two stories in height, with cellar; walls of the building no more massive than those of an ordinary dwelling-house; first story to coutain attendant's room, day-room for patients, kitchen, pantry, dining-room, and wash-room; second story to contain sleepingspace for patients, about one-quarter in single rooms, and the bath-room. The privy, which is detached, should be connected with the house by an inclosed passage-way. The attendant's room should command a view of the entire airing-court, and the patient's day-room should open directly into the latter, or upon a broad veranda projected from this side of the house; heating by furnace, though stoves can be used with safety; lighting by gas; ventilation by means of flues terminating out of the roof; water for bathing, cleaning, and cooking pur-These houses to stand distant from the main building, and from each other, so that, in case of fire, no other structure would be endangered. In locating them it would be found advantageous, in some cases, to have one inclosure, or airingcourt, embrace two cottages. The broad veranda above mentioned would take the place of the usual airing-court summerhouse, and this veranda could be so constructed as to admit of being closed in cold weather, and used in connection with the day-room. Graveled or plank walks, and macadamized roads, would connect these buildings with the central ones. The most distant cottage would not be more than three minutes' moderate walk from the executive building. The food would be supplied from a common kitchen, and carried by hand. The capacity of these structures would be for thirty patients each, with two attendants. In some places, however, modifying circumstances might exist, requiring, in part, larger or smaller buildings. For the farm (working) patients, if their work is at some distance, the building designed for them might be located nearer to their work, and planned so that the cooking could be done for them in the same building.

Each building can be adapted, the same as a ward, to the

needs of its inmates. The disorderly and destructive, or the filthy patients, need, of course, something different from the quiet, cleanly, and orderly. One cottage of each group should be of larger dimensions, better furnished, and the sleeping-space planned mostly for single rooms; this building to be for the use of convalescents, a few cases of recent insanity, and certain of the chronic cases, who are able to appreciate better surroundings. The sleeping-space in the other buildings should give to each patient not less than six hundred and thirty cubic feet; ' the day-room, exclusive of the dining-room and veranda, which can be thrown into the latter, should allow forty superficial feet to each patient.

It will be seen that these buildings possess all the requisites of an ordinary hospital-ward, and differ from the latter only in this: the former possesses a kitchen, no corridor, and has different water-closet arrangements. The cottage has a decided advantage over the ward, in that the day-room is on the ground-floor and opens directly into the airing-court. The patients would be under the control of, and managed by, attendants precisely as if the cottage were a ward: the same discipline would exist in the latter as in the former.

Situated on each side of the executive building, and connected with the latter by a covered way, would be the hospital structure proper, with capacity to accommodate seventy-five of each sex (supposing five hundred to be the number to be provided for). In these structures we want nothing stately or massive; no domes, towers, or turrets; neither is it necessary to provide for forced ventilation, nor the usual hospital tramway, with track and car, for the food would be carried by hand—a tasteful but plain two-story structure, with all needed modern improvements, and adapted to the care of those who need medical treatment.

¹ It may be objected that the six hundred and thirty cubic feet of space in sleeping-rooms is too small. It is true it is less than is allowed theoretically in the modern asylum, but practically it is more than the patients get in three-quarters of our State asylums, owing to the fact that they are overcrowded. The question as to the proper amount of space that each person should have in sleeping-rooms should depend somewhat upon the means of ventilation at hand.

The executive building would be on a scale greatly reduced from the usual standard. This building would need no forced ventilation, but otherwise it would possess all needed modern improvements, and all the requisites for conducting the business of the institution, besides apartments for the medical and other officers. In the rear of this would be situated a building containing the general and special diet-kitchen, laundry, bakery, sewing-room, chapel, and amusement-hall, and rooms for about twenty of the employés. In close proximity would be the boiler-house, which, like the executive building, would be on a greatly-reduced scale. Under this arrangement the amount of boiler-surface necessary would not be more than one-third of that required under the old plan.

Such is a general description of the different buildings required for the accommodation of the insane on the cottage

plan.

One of the principal objections urged against this plan is the cost—that it will exceed greatly, not only in the first cost of construction, but in the daily expense of carrying on an institution on this plan.

institution on this plan.

We have been at some pains to procure estimates of the cost of the various buildings described above, and find them (upon the basis of five hundred patients) as follows, all constructed of brick:

Executive building, fully furnished	\$41,000
Rear buildings, fully furnished and equipped	42,000
Hospital buildings proper, fully furnished	60,000
Cottage buildings, ten in number, and furnished (\$11,562	
each)	115,620
Two convalescent cottages (\$15,000 each)	30,000
Total	

This, certainly, does not look as if the cost of an institution on this plan would exceed that of the hospital, but the reverse of what the opponents of the cottage plan assert. Comparing the large, massive hospital building with lighter, detached structures, we find this difference: In hospital buildings the plan of the structure is necessarily such that, in every story, not only in the wings but in the centre or executive building, there exists superfluous space, that is, space which

cannot be utilized, but which of necessity occurs in the present style of hospital construction. The centre building must. of course, be large, so that the whole may present a proper architectural appearance. The many stair-ways, hall-ways, corridors, etc., in these large buildings, take up an immense amount of space. Taking the wards alone, it will be found that each patient gets, in the corridors and day-rooms combined (sleeping and other rooms excluded) from seventy to ninety superficial feet of space. Now, this is very much more than they really need, and is almost twice as much as is recommended by the English commissioners in lunacy; yet all this extra room, besides the sleeping and other rooms, requires as much warming as any part—this being unavoidable under the present plan of construction. Of course, this involves an outlay in heating apparatus, boiler and fuel, greater than would otherwise be needed. This extra expense would be avoided in the smaller buildings, there being no corridor-space, and, the sleepingrooms not being used except at night, no heat would be wasted; and the amount of heat required for one of these small structures would be two-thirds less than would be required for the modern hospital-ward calculated for the same The heated air entering a ward is diffused throughout all the vast space within it, the sleeping-rooms taking about one half. Now, if the patients are kept in the corridors and day-room, all the heat that goes into their sleeping-rooms is wasted; and, if they are using both the corridors and their rooms, this amount of space is certainly out of proportion to their needs. The hospital ward, generally speaking, is, as it were, one vast area or room (or scries of rooms), the whole of which must be used by only a certain number, even if the amount of space is several times more than they need. This waste—for it amounts to a waste—of space can be avoided in a small building, because it admits of being planned differently. The advantage of the latter is, that every part of it can be utilized, saving a vast amount of the labor of cleaning and repairing, which all goes for nothing in the large building; and, besides, the superfluous space of the latter has to be cal-

¹The heat of the day-room of the cottage can be utilized at night for the sleeping rooms.

eulated for in the expense of construction, whereas in the former no such expense would be incurred. Again, in constructing cottages, the walls of which would be very much less massive than those of the hospital, a saving of building-material would be realized. Also a saving would result by the avoidance in cottages of those expensive appliances, the watercloset, and the machinery for what is called forced ventilation. As to repairs of buildings, the expense of keeping up the latter cannot possibly be greater than that of the former. True, the walls of the massive hospital structure may stand longer than the lighter walls of the small buildings, but who has not heard of the fact that hospital buildings may and do outlast their usefulness? and are we not already in this country beginning to talk of remodeling and removing altogether hospital structures for the insane? Because these buildings are constructed upon a reduced scale, it does not follow that they eannot be well made, and strong enough for the purpose for which they are designed; a huge, massive building may be shabbily constructed, requiring frequent and extensive repairs. Nor will it be necessary, as some imagine, to increase the force of attendants. Why should the same number of patients need more attendants in one place than in another? The work of transporting the food, clothing, etc., can be done by the aid of the patients themselves. From the male cottage enough help can be obtained, not only to do their own work of this kind, but that also of the female cottages; and this help need not be drawn from the force of patients who work steadily on the farm, but other eases who can be got to perform light jobs not of long duration. It is much more easy to induce patients to take hold of work when they are living near the ground, and in a manner more nearly approaching family life. This fact has been demonstrated beyond a doubt at the Connecticut General Hospital for the Insane, by the superintendent of the institution, Dr. A. M. Shew, who in the fall of 1871 began practically to test the cottage system. He has made a more thorough trial of a combination of the cottage and hospital plan (the plan we are advocating) than any other superintendent in this

¹ Seventh Annual Report.

country, demonstrating several facts regarding the working of the system which had hitherto remained in doubt.

Nobody disputes the fact that, other things being equal, it is relatively cheaper to provide for and take care of five hundred persons in one building than it would be in many; but taking the modern asylum building as it is, and comparing it with the buildings we have described, the difference of cost in favor of the latter must be at once admitted. Detached buildings, for a needlessly small number, built massively and with hospital appliances, and rendered difficult of access by being scattered over a large area, would not meet with our approval: such a scheme could be justly criticised as expensive; yet, almost invariably it is from this stand-point that objectors to the cottage system view the latter, without stopping to consider whether, if a certain plan proposed be impracticable, it may not by suitable modifications be rendered feasible. On the other hand, we find a few who object to it on the ground of the appearance of cheapness. To provide for these poor, unfortunate creatures otherwise than by erecting a stately hospital edifice is deemed unworthy of any State in this hospital-building age.1 The result of this doctrine is, practically, to keep a large portion of the insane forever in almshouses. A few years ago, when it was proposed to care for the chronic insane separately, and in buildings other than hospital, this outcry of cheapness was raised in default of having any substantial reasons to offer against it; the objections to the plan were purely sentimental. The establishment for the chronic

¹ To show how in the direction of needless extravagance this hospital policy is tending, we quote from an editorial which appeared not long since in the Hartford (Conn.) Daily Courant, headed "Costly Experiments in Building." A number of public huildings in New York are referred to. The facts were taken from a report "published by the finance committee of the State Senate of New York." It is found that on one of the hospitals now huilding there had heen expended, including debts, over one million dollars, and yet "the work under the most favorable estimates lacks more than two-thirds of heing completed." "If carried on as hegun, this charitable enterprise will cost the State hetween three and four millions, while the largest estimate for the complete thing was not more than \$800,000." Other similar instances might be cited of needless expenditure on buildings for the insane, but this will be sufficient.

insanc at Ovid, N. Y., seems to be working successfully, and the Commissioners of Charities accord to it praise equally with the other institutions of the State.

Again, the cottage plan is objected to by some on the ground that the discipline will be defective where the buildings are disconnected-that the patients will be abused, and that the officers will "constantly find excuses for not visiting them;" while others raise the objection that the cottage patients will be deprived much of the time by bad weather from attending the evening amusements or entertainments which are a part of the moral treatment. Now, this latter might be a serious objection, provided the cottages were at a considerable distance from the main building, which they are not, according to our idea of the plan. We admit that an occasional storm will interfere, but the loss oecasioned by it will be too insignificant to constitute an objection worthy of consideration. Regarding the officers failing to perform their duty in visiting the eottage patients, that is a matter wholly within the power of the superintendent to correct; and as to whether the patients are abused, the fact can be ascertained as readily in the detached as in the "close" building. To offer these as objections to the cottage plan is simply a begging of the question.

It would seem that those who think the insane as a whole need hospital accommodation must rest under the belief that they are all amenable to medical treatment, and in a helpless condition, requiring nurses to wait on them in every particular. Now, the very reverse of this is the truth. But the smallest fraction of the insane need medical treatment; and, as to being helpless, they do not, in general, need much waiting on: they need directing only. In their personal habits, under proper management, they are very much like sane persons; some, on first entering an institution, need only slight directing, while others need more attention; but the number of the latter is comparatively small. With our present limited knowledge of mental pathology, why not admit first as last that the insane-at least the chronic portion-instead of being so many persons to be doctored, are so many persons to be directed? Once discard this notion of medication, and no such idea as hospital would be suggested to the mind. Hospital



implies medical treatment and nursing. But what a small proportion of the insane in State asylums need or receive medical treatment! The benefit they receive by being in institutions is derived, not from the drugs they get, but from the wholesome discipline extended over them—in other words, the moral treatment they are subjected to; and this moral treatment, we believe, can be made more potent and farreaching under the plan we are advocating than it can under the old traditional system.

Some writer has said that "the present methods of distributing charity, as a whole, are costly and bungling. waste more than they help." This truth is especially applicable to the wholesale hospital policy of the association of Superintendents of American Institutions for the Insane. This Association is still reluctant to give up this one remaining traditional idea of prison-like walls indiscriminately surrounding the insane. It is true the Association recommends these hospitals to be "plain," which they are as a general thing; yet, in so recommending, it is seemingly thought that, if the expense of ornamentation is done away with, buildings of gigantic proportions may be erected. But size, as well as ornamentation, is costly. Many of them are so spacious, containing such an excess of room for each inmate, that the cost of the building is almost equal to the cost of erecting for each patient separately a small house. To suppose that an insane person will recover any sooner, or with any more certainty, by reason of being placed in a room twice as large as he needs, or in a corridor, the ceiling of which is several feet higher than he has been accustomed to, is sheer nonsense. Now, it is in this "costly and bungling" way that States, in obedience to the recommendation of the above-named Association, are caring, or trying to care, for their dependent insane; they are unconsciously trying to provide for their pauper class the same grand and luxurious establishments as the rich are supposed to need. What the latter prefer and need in the way of a building does not concern us here, and it is immaterial, since they can pay for what they have. But what the poor need and prefer is, not the stately hospital, but rather the real home-comforts of life.

Medical Works published by D. Appleton & Co.

Anstie on Neuralgia. 1 vol., 12mo. Cloth, \$2.50.

Barker on Sea-Sickness. 1 vol., 16mo. Cloth, 75 cents.

Barnes's Obstetrie Operations. 1 vol., 8vo. Cloth, \$4.50.

Bellevue and Charity Hospital Reports. 1 vol., 8vo. Cloth, \$4.00.

Bennet's Winter and Spring on the Mediterranean. 1 vol., 12mo. Cloth, \$8.50. Bennet on the Treatment of Pulmonary Consumption. 1 vol., 8vo. Cloth, \$1.50. Billroth's General Sargical Pathology and Therapeuties. 1 vol., 8vo. Cloth,

\$5.00; Sheep, \$6.00.

Combe on the Management of Infancy. 1 vol., 12mo. Cloth, \$1.50.

Davis's (Henry G.) Conservative Surgery. Cloth, \$3.00.

Elliot's Obstetrie Clinic. 1 vol., 8vo. Cloth, \$4.50.

Flint's Physiology. 4 vols. (Vol. V. in press.) 8vo. Cloth, per vol., \$4.50; Sheep, \$6.

Flint's Manual on Urine. 1 vol., 12mo. Cloth, \$1.00.

Flint's Relations of Urea to Exercise, 1 vol., 8vo. Cloth. \$2.00.

Hammond's Diseases of the Nervous System. 1 vol., 8vo. Cloth, \$5.00.

Hammond's Physics and Physiology of Spiritualism. 1 vol., 12mo. Cloth, \$1. Holland's (Sir Henry) Recollections of Past Life. 1 vol., 12mo. Cloth, \$2.00.

Howe on Emergeneies. 1 vol., 8vo. Cloth, \$3.00.

Haxley on the Anatomy of Vertebrated Animals. 1 vol. Cloth, \$2.50.

Huxley and Youmans's Physiology and Hygienc. 1 vol., 12mo. Cloth, \$1.75. Johnston's Chemistry of Common Life. 2 vols., 12mo. Cloth, \$3.00.

Letterman's Recollections of the Army of the Potomae. 1 vol., 8vo. Cloth, \$1. Lewes's Physiology of Common Life. 2 vols., 12mo. Cloth, \$3.00.

Manual of Medicinal Chemicals and their Preparations. Cloth, \$3.00.

Markoe on Discases of the Bones. 1 vol., 8vo. Cloth, \$4.50.

Maudsley on the Mind. 1 vol., 8vo. Cloth, \$3.50.

Maudsley's Body and Mind, 1 vol., 12mo. Cloth, \$1.00.

Meyer's Electricity. 1 vol., 8vo. Cloth, \$1.50.

Niemeyer's Practical Medicine. 2 vols., 8vo. Cloth, \$9.00; Sheep, \$11.00.

Neftel on Galvano-Therapeuties. 1 vol., 12mo. Cloth, \$1.50.

Nightingale's Notes on Nursing. 1 vol., 12mo. Cloth, 75 cents.

Neumann ou Skin Diseases. 1 vol., 8vo. Cloth, \$4.00.

Peaslee on Ovarian Tumors. 1 vol., 8vo. Cloth, \$5.00.

Pereira's Materia Medica and Therapeuties. 1 vol., 8vo. Cloth, \$7; Sheep, \$8.

Sayre's Club-foot. 1 vol., 12mo. Cloth, \$1.00.

Strond's Physical Cause of the Death of Christ. 1 vol., 12mo. \$2.00.

Swett on Diseases of the Chest. 1 vol., 8vo. Cloth, \$3.50.

Simpson's (Sir Jas. Y.) Complete Works. Vol. I. Obstetrics and Gynæcology. 8vo. Vol. II. Anæsthesia, Hospitalism, etc. 8vo. Vol. III. The Diseases of Women. Per vol., Cioth, \$3.00; Sheep, \$4.00.

Tilt's Uterine Therapeutics. 1 vol., 8vo. Cloth, \$3.50.

Van Buren on Diseases of the Rectum. 1 vol., 12mo. \$1.50.

Vogel's Diseases of Children. 1 vol., 8vo. Cloth, \$4.50; Sheep, \$5.50.

Wagner's Chemical Technology. 1 vol., 8vo. \$5.00.

Barker on Puerperal Diseases. 1 vol. Cloth. \$5,00.

Van Buren and Keyes's Genito-Urinary Diseases, with Syphilis. (To appear shortly.)

Schroeder on Obstetrics. 1 vol., 8vo. Cloth, \$3.50.

Frey's Histology and Histo-Chemistry of Man. (In press.)

Wells on Diseases of the Ovaries. 1 vol., 8vo. Cloth, \$5.00.

Steiner's Compendium of Children's Discases. (lu press.)

Bastian's Diseases of Nerves and Spinal Cord. (In press.)

Hammond's Insanity in its Relations to Crime. 1 vol., 8vo. Cloth, \$1.00

Hammond's Clinical Lectures on Diseases of the Nervous System.

Ecker's, Convolutions of the Brain. Price, \$1.25.

Hamilton's (A. MeL.) Electro-Therapeutles. 1 vol., 8vo, cloth, \$2.00.

Bulkley's (L. D.) Acne; its Pathology, etc.

Chanceau's Comparative Anatomy of the Domesticated Avimals. Edited by George Fleming, F. R. G. S., M. A. I. 1 vol., Svo, with 450 Illustrations. Cloth, \$6.06

• Any of these works will be mailed, post-free, to any part of the United States on receipt of the price. Descriptive Catalogue forwarded on application.



APPLETONS'

AMERICAN CYCLOPÆDIA.

NEW REVISED EDITION.

Entirely rewritten by the ablest writers on every subject. Printed from new type, and illustrated with Several Thousand Engravings and Maps.

THE work originally published under the title of THE NEW AMERICAN CYCLOPÆDIA was completed in 1863, since which time the wide circulation which it has attained in all parts of the United States, and the signal developments which have taken place in every branch of science, literature, and art, have induced the editors and publishers to submit it to an exact and thorough revision, and to issue a new edition entitled THE AMERICAN CYCLOPÆDIA.

Within the last ten years the progress of discovery in every department of knowl-

edge has made a new work of reference an imperative want.

The movement of political affairs has kept pace with the discoveries of science, and their fruitful application to the industrial and useful arts and the convenience and refinement of social life. Great wars and consequent revolutions have occurred, involving national changes of peculiar moment.

The civil war of own country, which was at its height when the last volume of the old new course of commercial and industrial

Large accessions to our geographical knowledge have been made by the indefatigable

explorers of Africa.

The great political revolutions of the last decade, with the natural result of the lapse of time, have brought into public view a multitude of new men, whose pames are in every one's mouth, and of whose lives every one is curious to know the particulars. Great battles have been fought and important sieges maintained, of which the details are as yet preserved only in the newspapers or in the transient publications of the day, but which early to take their place in representation and authentic history.

but which ought now to take their place in permanent and authentic history.

In preparing the present edition for the press, it has accordingly been the aim of the editors to bring down the information to the latest possible dates, and to furnish an accurate account of the most recent discoveries in science, of every fresh production in

curate account of the most recent discoveries in science, of every fresh production in literature, and of the newest inventions in the practical arts, as well as to give a succinct and original record of the progress of political and historical events.

The work has been begun after long and carcful preliminary labor, and with the most ample resources for carrying it on to a successful termination.

None of the original stereotype plates have been used, but every page has been printed on new type, forming in fact a new Cyclopædia, with the same plan and compass as its predecessor, but with a far greater pecuniary expenditure, and with such improvements in its composition as have been suggested by longer experience and enlarged knowledge.

The illustrations, which are introduced for the first time in the present edition, have

The illustrations, which are introduced for the first time in the present edition, have The illustrations, which are introduced for the first time in the present edition, have been added not for the sake of pictorial effect, but to give greater lucidity and force to the explanations in the text. They embrace all branches of science and of natural history, and depict the most famous and remarkable features of science, architecture, and art, as well as the various processes of mechanics and manufactures. Although intended for instruction rather than embellishment, no pains have been spared to insure their artistic excellence; the cost of their execution is enormous, and it is believed they will find a welcome reception as an admirable feature of the Cyclopædia, and worthy of its high character.

This work is sold to subscribers only, payable on delivery of each volume. It will be completed in sixteen large octavo volumes, each containing about 800 pages, fully illustrated with several thousand Wood Engravings, and with numerous colored Lithographic Maps.

Price and Style of Binding.

Four volumes now ready. Succeeding volumes, until completion, will be issued once in two months.

*** Specimen pages of the AMERICAN CYCLOPÆDIA, showing type, illustrations, etc., will be sent gratis, on application.

FIRST-CLASS CANVASSING AGENTS WANTED.

Address the Publishers,

D. APPLETON & CO., 549 & 551 Broadway, N. Y.